
FLIPPED MUSEUM

HOW VISUAL THINKING STRATEGIES AND COLLABORATIVE WORK

IMPROVE SKILLS AND ENGAGE IN MUSEUM VISIT

*Vincenza Ferrara*¹

Introduction

National guidelines, European recommendations, international debates in the field of learning and cultural heritage have suggested studies to develop practices and methods for school education and lifelong learning.

Over the years, research connected to “New Museology” has proposed to teachers and museum educators the use of both scientific and historical-artistic museum objects to develop learning activities based on constructivism (i.e. the learner or visitor is placed at the centre of the learning process). In this context, the Italian research group applied the Visual Thinking Strategies (VTS) method in the school environment and in the medical and nursing area. This methodology uses art as a tool to improve learning processes and is a valuable contribution for teachers. In fact VTS engages students in collaborative work and in the development of soft skills. All those involved in this process – students and people in general – gain awareness of the value of heritage as a collective asset, and of the importance of its protection. In the field of medicine and nursing science, VTS can improve the skills needed for diagnosis and care. After only two years, the research group have registered good results and positive impact on student and adult learning both in school and museum environment.

The museum as a learning environment

The constructivist theory is recognised as an important reference in museum education. This approach sees knowledge as being constructed in the mind of the learner when the new informal content (in our case a museum object) is integrated into an individual’s existing cognitive schemata. The learner acts as an active agent in control of his learning and he/she uses the ideas or concepts based on prior learning and experiences to make sense of the new knowledge (Hooper- Greenhill, 1999).

The importance of experience in learning is also at the core of David Kolb’s “Experiential Learning Theory” (1984), where the author explains how the learning process is based on previous experiences, knowledge and interests, and social collaboration and communication help this process to work well.

Constructivism and related studies have encouraged museum curators to change the traditional approach into a new way of organising museum exhibitions, with activities meant to set up environments where visitors’ active participation is warmly encouraged (Simon, 2010).

¹ DIGILAB - Sapienza University, Via dei Volsci, 122 - 00185, Rome (Italy), vincenza.ferrara@uniroma1.it.

Museum objects play an important role in this context. When we talk about museum objects, we talk about works of art, technical, historical or technological artefacts, reconstructions or interactive and multimedia exhibits. All cultural objects can be “knowledge containers” conveying their personal story: when, where and why was it, who was its creator, who owned it, where was it, who used it before being moved to the museum and more. The object also contains “the story” of the artist, scientist or technology developed, information about the historical context, social geography, and in some cases the contribution to social or scientific change. Furthermore, the museum object can represent a story through the eyes, culture and experience of those who look at it. For all these reasons, any museum object can be used as a content for multidisciplinary learning, regardless of their typology (work of art, archaeological finds, plant or scientific or mineral instrument) (Weber, 2002).

In this research area the museum object, especially the artwork, can be considered as the starting point for a multidisciplinary lesson, and it is a powerful tool to activate a learning process.

The Visual Thinking Strategies

Following the studies on museum visitors, at the end of 1980 Abigail Housen, a cognitive psychologist, and Philip Yenawine, an expert coordinator of educational activities at MOMA, used art observation to develop the Visual Thinking Strategies (VTS) method.

This method is based on the connection between visual perception and thought. According to Arnheim, identifying what we see is an act of knowledge: when you look at something, you quickly implement the mechanisms of understanding and recognising the sense of what is before your eyes (Arnheim, 1969).

Based on this principle, VTS uses artwork observation to engage students in discussions to develop critical thinking, communication and observational skills. Housen integrated studies on perception on the learning process (Piaget, 1926) with Vygotsky’s studies on collaborative work and on the relationship between thought and language (Vygotskij, 1986). In VTS, an expert facilitator guides visitors in the artwork observation through the use of three questions: *What is going on in this picture?; What do you see that makes you say that?; What more can we find?* This method encourages constructive dialogue and promotes the development of individual observation and reflection skills. It is based on the principle of the learner-centred method to examine and find meaning in visual art, to increase observation skills, evidential reasoning, and speculative abilities. Furthermore it improves the ability to find multiple solutions to complex problems, facilitating a discussion with a respectful democratic and collaborative approach to problem solving among students or team members.

To build up a group of peers, the following rules are to be applied:

- carefully look at the image or artwork
- talk about what has been observed
- support personal ideas with visual evidence
- listen and consider the point of view of others

VTS proposes visual art to teach “thinking” based on a personal relationship between art and learner. The VTS method has successfully been applied in the education programs of several schools in the USA and in museums. In the classroom the teacher shows students the image of a work of art and encourages them to explain what they see as a way to improve their learning. In museums, the education staff use VTS to facilitate visitors’ understanding and to make them feel in a familiar environment (Yenawine, 2013).

VTS in Italy - The experience

Since 2015, the VtsItalia research group has been applying the VTS method in school and university courses in collaboration with museums. The principal aim was to encourage teachers to use and re-use cultural heritage in the classroom, and museum staff to enhance the visit process by different public considering their experience, culture and curiosity.

Starting from 2015/2016, the project *Observing artwork as a form of education for learning and citizenship* proposed for the first time in Italy the introduction of the Visual Thinking Strategies in school curricula. In the space of a year, 2600 students of all ages, from 10 different schools, together with their teachers, took part in laboratory practices, consisting in the application of the VTS method, both in classroom and in museum contexts, with the support of a tutor.

The first important step was to change the point of view of teachers and museum staff connected with the “role” and position of museum objects in relation to students or visitors. The museum and the classroom were “flipped” and the students were placed at the centre of the learning or visiting process. At the same time, teachers were trained on the VTS method, that they applied in class aided by a tutor; finally, the museum visits were enriched with laboratory practices. Also students with special needs were encouraged to participate in collaborative work.

Teachers of different disciplines were involved in this experience. An interesting result has been achieved by the teachers of foreign language, who introduced the activity in their English and Spanish lessons, thus involving art in the CLIL (Content and Language Integrated Learning) method. The good results of this application suggested that art can respond to new challenges in learning environments.

In addition, the VTS method seemed to be useful to improve problem solving, critical thinking, collaborative work and respect for the other’s thinking to achieve social inclusion.

Courses and seminars have been set up for students of medicine, nursing and medical doctors in collaboration with many museums in Rome: “La Galleria Nazionale”, “Museo di Roma”, “Museo Napoleonico”, “La Galleria Comunale di Roma”, “La Galleria Borghese”.

The university students were divided into groups of 5/6 components and were brought in front of an artwork without knowing the title and the author. The facilitator guided them to describe what was happening in the image. After three meetings, the students had improved their observation, communication and team working. They also expressed curiosity and the desire to know more of the artwork and the artist.

This experience has demonstrated how VTS can help medical students learn and acquire analytical ability. In fact, supported by the VTS tools, students use art to observe, analyse, compare and discuss – in other words, they gain a method that can be applied in clinical practice. They can improve skills such as problem solving, critical thinking and team working, cultivate empathy toward patient and respect for others (whether patient or colleague), become more analytical in the physical examination of the patient (Ferrara, 2015).

Results and perspectives

Younger students showed enthusiasm, good disposition to meet art in this way and, surprisingly, the desire to bring their parents to the museum to show them the artwork observed at school. The research group considers this result a good suggestion to re-think the museum visit.

Qualitative analysis suggests: students have shown interest and involvement in group working, where also students with special needs were encouraged to participate.

This new approach to art was very appreciated by all students.

Students of medical and health area and doctors have considered particularly interesting the observation of art as a tool for improving the skills related to their work and they added useful suggestions in the questionnaire they filled in at the end of the course:

- recognize the story, identify the details and their meaning;
- the links between Art and Medicine;
- art can be useful to a doctor;
- “I have learned to observe carefully and with a critical eye, to formulate hypotheses by confronting myself with others and to integrate different ideas and knowledge”.

Changing the museum view/flipping the viewpoint, placing the student at the centre of the learning process, can help disseminate cultural heritage and involve an audience with different age and interests in museum visits.

References

- Arnheim, R. (1969), *Visual Thinking*, Berkeley-Los Angeles, University of California Press.
- Ferrara, V., De Santis, S., Staffoli, C., (2015), “Art and Medicine: from anatomic studies to Visual Thinking Strategies”, in *Senses and Sciences* 2015; 2 (2), pp.: 40-44, retrieved on July 11, 2017 from http://docs.wixstatic.com/ugd/00b67f_89512a6d4fdf434895216f5e044c3c9c.pdf.
- Ferrara, V., De Santis, S., Giuliani C., et al. (2016), “L’Arte dell’osservazione, dall’opera artistica alla diagnosi. Le prime esperienze in Sapienza Università di Roma”, in *Medicina e Chirurgia*, 72, 2016, pp. 3269-3273, retrieved on July 11, 2017, from <http://www.quaderni-conferenze-medicina.it/larte-dellosservazione-dallopera-artistica-alla-diagnosi-le-prime-esperienze-in-sapienza-universita-di-roma-a-medicina-e-chirurgia/>.
- Hooper- Greenhill, E. (1999), *Museums & their visitors*, (2nd ed.), London-New York, Routledge.
- Kolb, D. A. (1984), *Experiential learning: Experience as the source of learning and development*, Englewood Cliffs, NJ, Prentice Hall.

- Piaget, J. (1926), *The Language and Thought of the Child*. London, K. Paul, Trench, Trubner & Co., Ltd.; New York, Harcourt Brace & Company, Inc.
- Simon, N. (2010), *The Participatory Museum*, Nina Simon CC Attribution-Non-Commercial <http://www.participatorymuseum.org/>.
- Vygotsky, L. S. (1986), *Thought and language*. Trans.A. Kozulin. Cambridge, MA, MIT Press.
- Yenawine, P. (2013), *Visual Thinking Strategies: Using Art to Deepen Learning Across School Disciplines*. Boston, Harvard education press.
- Weber, T. (2002), "Learning in schools and learning in museums: which methods best promote active learning?", in S. Calcagnini, Z. Felfoldi, J. Van Den Bosch, M. Xanthoudaki (eds), *A Manual of Good Practice Based on the Collaboration Between Science Museums and Schools*. Milan, Museo Nazionale della Scienza e Tecnologia.